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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/708,911 | 11/08/2000 | Etsushi Yajima | 09792909-4681 | 2666 |

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07/03/2003

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EXAMINER

MERCADO, JULIAN A

ART UNIT

PAPER NUMBER

1745

14

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/708,911

Applicant(s)

YAJIMA ET AL.

Examiner

Julian A. Mercado

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4-21-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-10 is/are allowed.
- 6) ☐ Claim(s) 11, 14 and 16-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Remarks

This Office Action is responsive to applicant's amendment filed April 21, 2003.

The rejection of claims 11, 14 and 16-22 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gies et al. has been withdrawn.

The rejection of claims 23 and 24 under 35 U.S.C. 103(a) based on Gies et al. and Sun has been withdrawn.

Claim Rejections - 35 USC § 102 and 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 14 and 17-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kamauchi et al. (U.S. Pat. 5,538,814)

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At the outset, the examiner notes that the claims are recited in product-by-process format. The limitations drawn to the electrode or product, therefore, are found only to delineate such an electrode having a rectangular carrier and a gel electrolyte film, wherein the gel electrolyte film has a width greater than that of the electrode carrier. Thus, regarding independent claim 11 and dependent claims 14, 15 and 17-22, Kamauchi is deemed to teach the claimed invention in that a rectangular electrode [1] or [2] has a gel electrolyte film [3] which can be appreciated to have a width wider than the width of the electrode. (See Figure 1, col. 12 line 37-41, col. 23 line 51-col. 24 line 13) The electrolyte salt is LiClO_4 . (applies to dependent claim 14) The swelling solvent is DMSO (col. 24 line 21 et seq.) As discussed in the prior Office Action, applicant's matrix polymer is not considered to be distinct from a gelling polymer in that the claimed matrix polymer is similarly dissolved and swelled in the electrolyte solution. In Kamauchi, the matrix or gelling polymer is disclosed as polyvinyl alcohol, which reads on the present Markush group in independent claim 11. (col. 24 line 17 et seq.)

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamauchi et al. as applied to claims 11, 14 and 17-22 above, in view of Oliver et al. (U.S. Pat. 5,639,573)

The teachings of Kamauchi are discussed above.

As to a swelling solvent of ethylene carbonate, *inter alia*, Oliver is relied upon to specifically demonstrate mutual equivalence of ethylene carbonate as a swelling solvent to DMSO in that ethylene carbonate within the scope of the present claims matches the function, way, and result of DMSO and additionally would be an obvious substitution to the skilled artisan

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in recognition of both species being non-protonic organic solvents. (col. 2 line 3-4, col. 3 line 26-43)

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as obvious over Kamauchi et al. as applied to claims 11, 14 and 17-22 above, in view of Sun (U.S. Pat. 5,609,974)

The teachings of Kamauchi are discussed above.

Sun as discussed in the previous Office Action is relied upon to teach a "jelly roll" configuration, i.e. wherein the electrodes are rolled in a longitudinal direction, having an insulation material as an exterior cover and a positive and negative electrode lead protruding therethrough. The skilled artisan would have found obvious to employ the electrode of Kamauchi as part of such a battery structure for reasons such as employing the flexibility and mechanical integrity of Kamauchi's electrode within a conventional battery configuration. (Sun, col. 7 line 66 et seq.)

Response to Arguments

Applicant's arguments directed against Geis et al. have been fully considered but are deemed moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Applicant is reminded that claims 1-10 are allowable for the reasons set forth in a prior Office Action.

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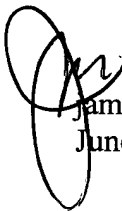
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian A. Mercado whose telephone number is (703) 305-0511.

The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


jam
June 28, 2003


Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700